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National Oceanic and Atmospheric Administration
National Marine Fisheries Service
TED Technology Transfer Program
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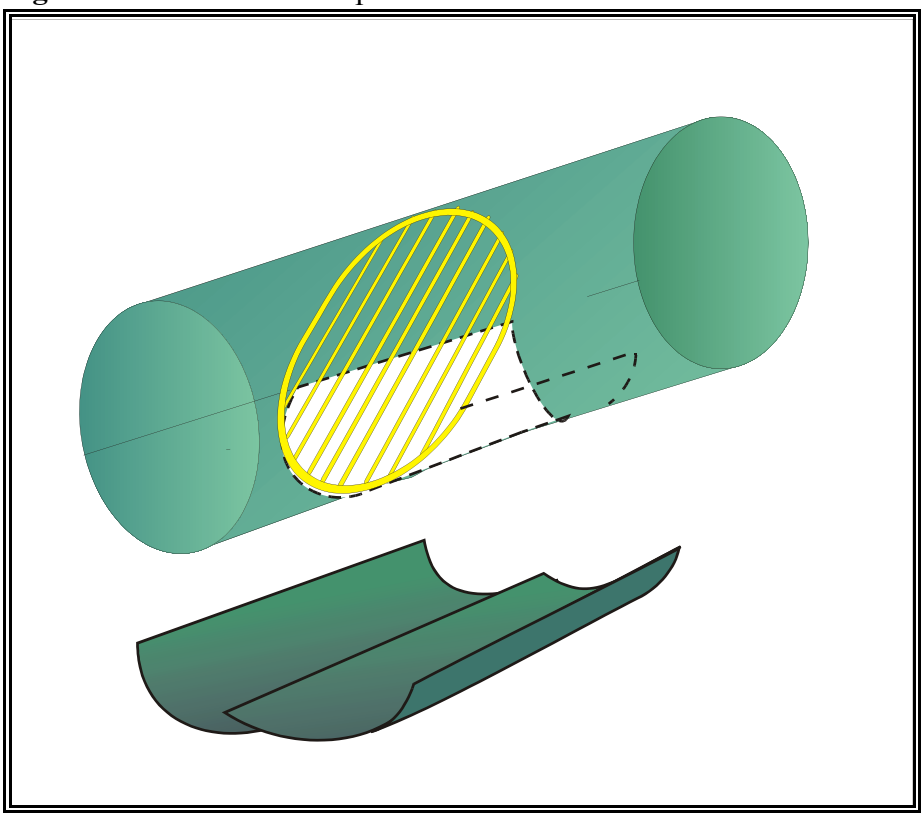
Instructions for the Double-Cover Offshore Turtle Escape Opening for Single-Grid Hard TEDs

This document provides instructions for modifying or constructing a double cover escape opening for a single-grid hard TED for use in all inshore and offshore waters. **All measurements are given in inches and apply to stretched mesh.** The actual regulatory requirements are based on inches, not mesh size. These instructions include approximate mesh counts only to provide a general indication of the size of the required openings. The number of meshes required will differ depending on the mesh size of each net. These instructions summarize regulations at 50 C.F.R. 223.207 (a)(7)(ii)(C), 223.207(d)(2)(ii), and 223.207(d)(3)(iii). It is the responsibility of the owners and vessel operators using these instructions to insure that their TEDs meet all regulatory requirements.

Figure 1 Double Cover Flap

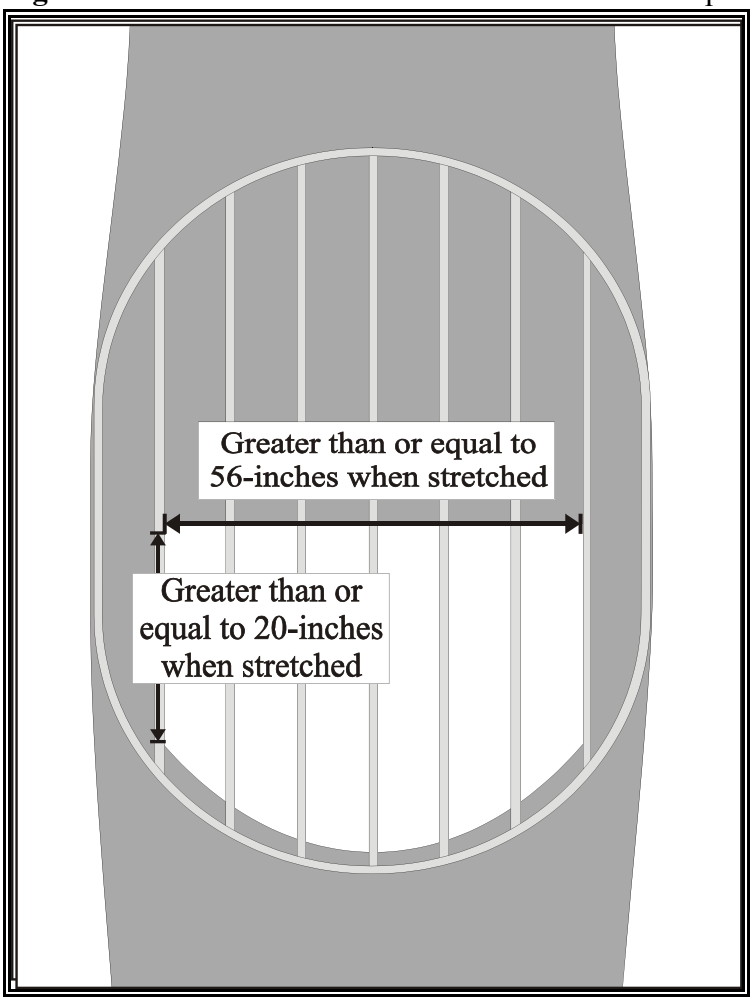


1 Double Cover Flap

1. ***Cutting the Exit Hole***

Cut a exit hole in the extension ahead of the TED frame 20 inches forward on each side, by 56 inches across the leading edge. (Figure 2) Note: These measurements are stretched mesh measurements. When making the cut, leave ½ mesh forward of the TED frame. If the trawl webbing is 1-5/8" the cut will be approximately 13 meshes long by 38 meshes wide. If the webbing is 1-1/2", the cut will be approximately 14 meshes long by 41 meshes wide.

Figure 2 Exit hole cut dimensions for double cover flap.



2. ***Constructing the Exit Hole Covers (Flaps)***

The exit hole cover is made by cutting two (2) rectangular pieces of depth stretched and heat set polyethylene webbing no larger than 1⅝-inch stretch mesh. Each panel must measure a minimum of 58 inches in width when stretched (A in Figure 3). Refer to Table 1 for approximate exit hole cover (flap) mesh count dimensions.

Figure 3 Diagram of exit hole cover piece (flap)

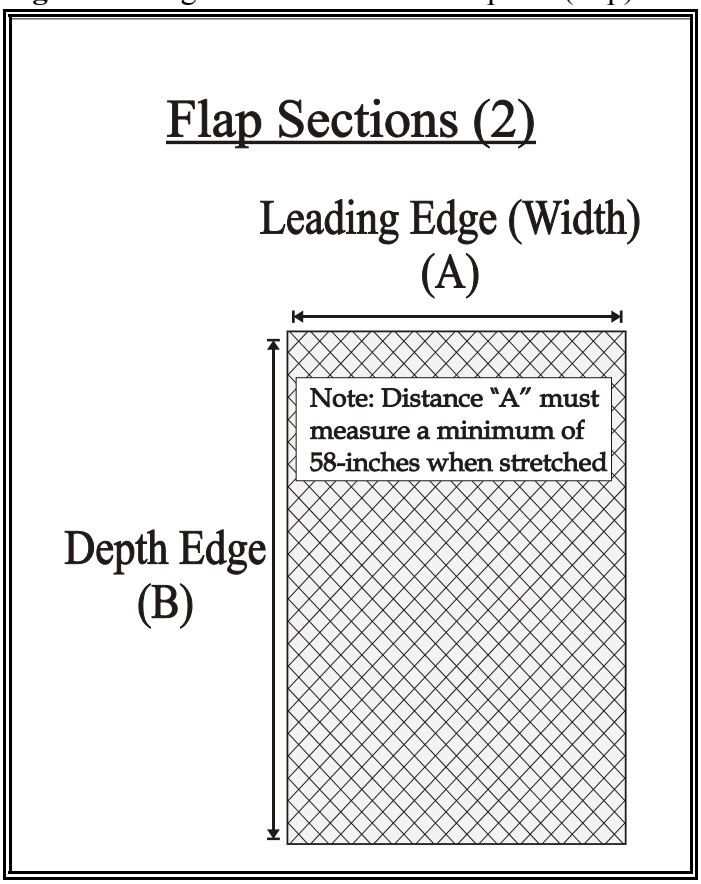
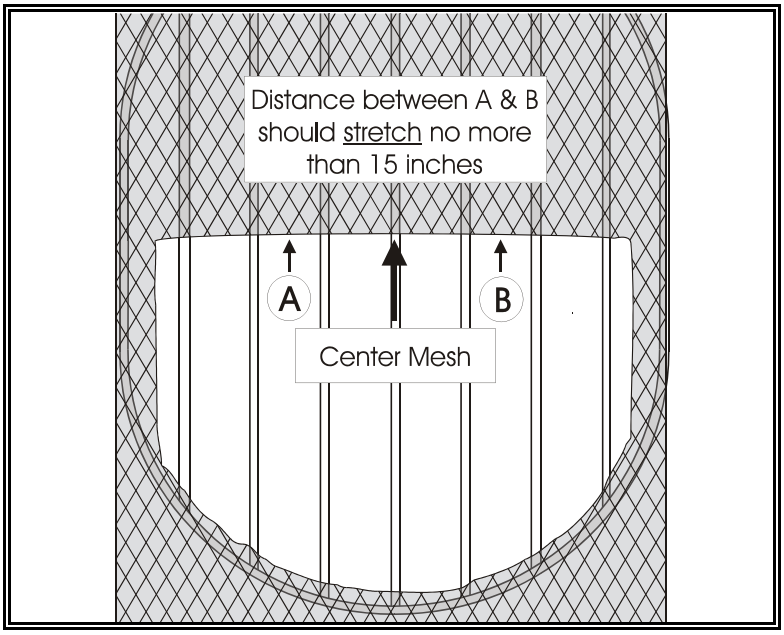


Table 1 Flap dimensions (mesh counts)

Flap Mesh Size	Flap Leading Edge Count (A) (no. of meshes)	Flap Depth Edge Count (B) (no. of meshes)
1½-inch	48 m	27 m
1⅝-inch	45 m	25 m

3. ***Installing the Exit Hole Covers (Flaps)***

Figure 4 Determining attachment points for flap pieces



NOTE: Please refer to the NMFS pamphlet titled *"Knot Orientation on TED Flaps"* when attaching flaps.

Attachment of forward edge of flap

1.) Refer to Figure 4. Mark the center mesh of the of the forward edge of the exit hole cut.

2.) Determine the number of meshes to the left and right of the center mesh needed in order to obtain a measurement no greater than 15 inches when the webbing is stretched. Mark these meshes for reference (points A and B in Figure 4).

3.) Attach the right flap piece starting at mesh "A" (Figure 5). Sew two meshes of flap to one mesh of TED extension between points "A" and "B". *

4.) Continue sewing flap to the right, distributing meshes evenly, to a point two or three meshes (maximum of 5 inches) beyond the edge of the escape opening cut.

5.) Repeat the above procedure for the left flap piece, beginning at mesh "B" (Figure 6).

* **Doubling the meshes between points A and B on each flap piece helps to maintain the overlap throughout the length of the flap.**

Exit Hole Covers (continued)

Figure 5 Attaching right flap piece

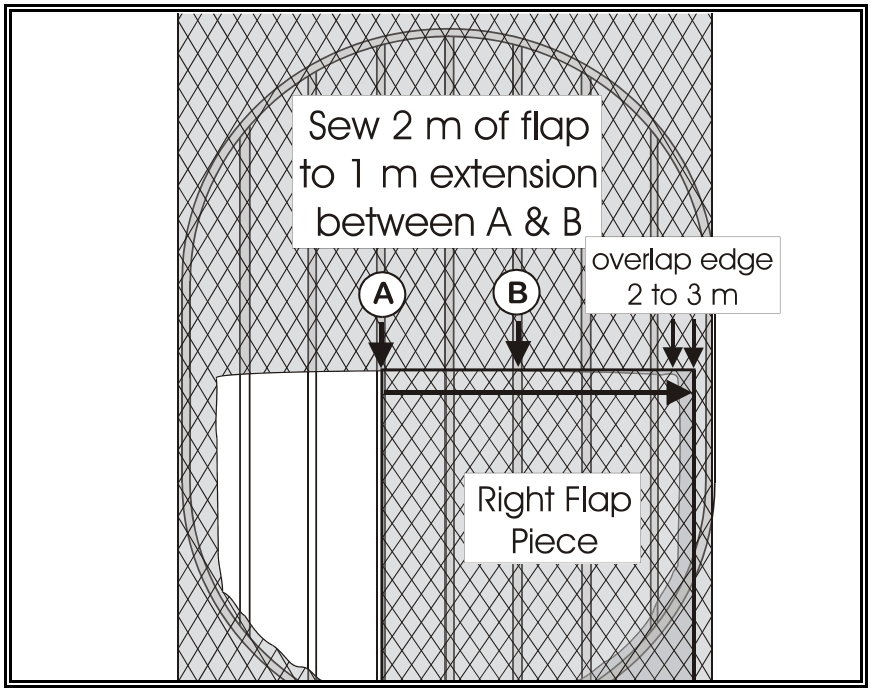
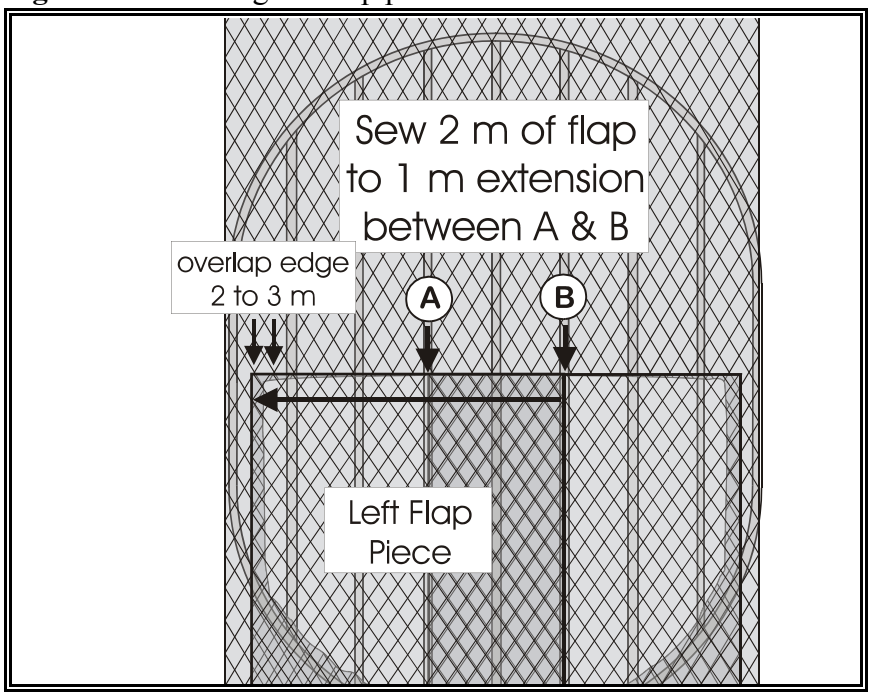


Figure 6 Attaching left flap piece



Exit Hole Covers (continued)

Attaching the sides of the flap pieces

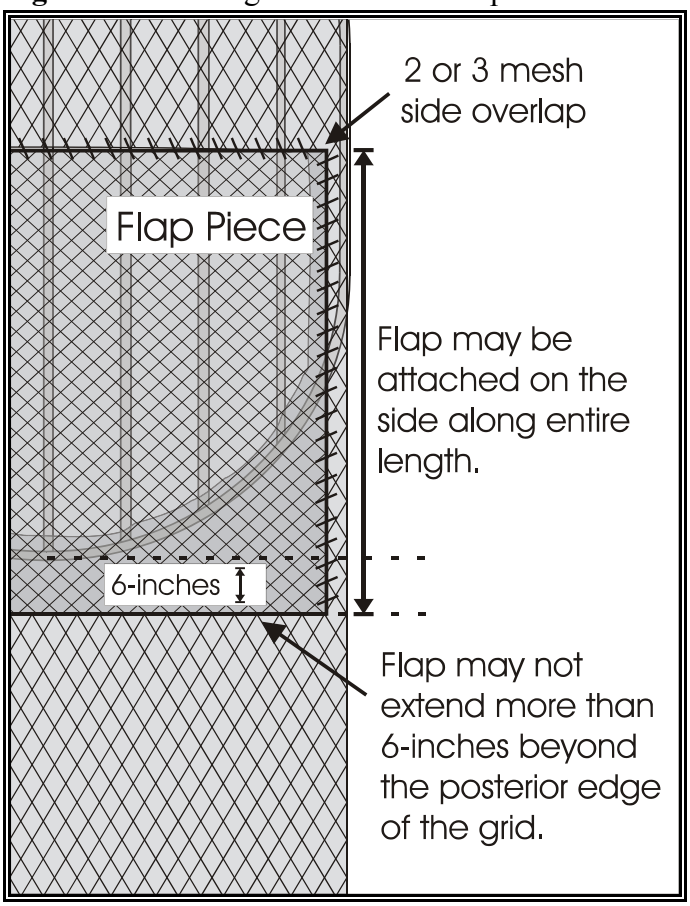
Refer to Figure 7. Attach the side of one flap piece perpendicular to the leading edge by sewing along a straight row of meshes, maintaining the 2 to 3 mesh overlap of the exit hole cut.

Continue attachment to a point which is no greater than 6-inches beyond the posterior edge of the grid. This point is determined by measuring 6-inches beyond the center of the posterior edge of the grid, and following a corresponding horizontal row of meshes to the intersection with the flap edge.

The flap may extend no more than 6-inches beyond the posterior edge of the grid.

Repeat the above procedure for the second flap piece.

Figure 7 Attaching the side of the flap



ACCELERATOR FUNNELS WITH THIS TED

If an optional accelerator funnel is used with the above TED in offshore waters or in the inshore waters of Georgia or South Carolina, the accelerator funnel must have an inside horizontal opening with a straight-line stretched measurement of at least 71 inches. In other inshore waters, the accelerator funnel must have an inside horizontal opening with a straight-line stretched measurement of at least 44 inches.

NOTE: A chafing flap is prohibited for use with the double cover flap modification.